

Inventor: Syouji OHISHI

Serial No.: 09/639,191  
Docket No.: 108391-00009

**IN THE DRAWINGS:**

Please replace Sheet 5/10 containing Fig. 5 and Fig. 6 and Sheet 10/10 containing Fig. 12 with the attached replacement sheets 5/10 and 10/10.

### **REMARKS**

The following remarks are fully and completely responsive to the Office Action dated May 31, 2005. Claims 1-16 are pending in this application, with claims 1, 3, 4, 5, 6, 8, 9, 11, 14, and 15 amended by the present amendment. In the outstanding Office Action, the drawings were objected to; claims 4, 5, 6, 8-11, 14 and 15 were objected to; claims 1, 3, 4, and 6-14 were rejected under 35 U.S.C. §112, first paragraph; claims 4 and 9 were rejected under 35 U.S.C. §112, second paragraph; and claims 1, 3 and 14 were rejected under 35 U.S.C. §103(a). Claims 2 and 16 were allowed. Claims 5 and 15 were indicated as containing allowable subject matter and would be allowable if amended to overcome the objection to these claims. No new matter has been added. Claims 1-16 are presented for reconsideration.

#### **Drawing Objection**

Fig. 6 on Sheet 5 of 10 has been amended to replace the word "correction" with the word "detection" as suggested in the outstanding Office Action. Similarly, in Fig. 12 on Sheet 10 of 10 the word "correction" has been replaced by the word "detection" as suggested in the outstanding Office Action. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the objection to the drawings.

#### **Claim Objections**

Claims 4, 5, 6, 8-11, 14 and 15 were objected to due to the informalities noted in the outstanding Office Action. These claims have been amended to correct these

informalities. Accordingly Applicant respectfully requests reconsideration and withdrawal of the objection to Claims 4, 5, 6, 8-11, 14 and 15.

### **35 U.S.C. §112, First Paragraph**

Claims 1, 3, 4 and 6-14 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action asserts that “correcting one of the first and second signal based on the orthogonal skew” as recited in claim 1, was not taught or described in the Specification in such a manner as to reasonably convey to one of ordinary skill in the art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicant requests reconsideration of this rejection.

As shown in Fig. 5 and described in the Specification at page 18, line 3 to page 19, line 9, a first signal, for example,  $S_I$ , is not modified in the skew correction device 20. In contrast, a second signal, for example,  $S_Q$  is modified in multiplication section 21 by first multiplying the  $S_Q$  signal with a sine-wave signal (cos wave) output from the sine-wave generator 50. A second multiplication section 22 multiplies the  $S_I$  signal with a sine-wave signal (sin wave) also output from the sine-wave generator 50. The outputs of multiplication sections 21 and 22 are summed or added in addition section 23. Addition section 23 outputs a modified  $S_Q'$  signal.

Accordingly, Fig. 5 and the associated description clearly illustrate that signal  $S_I$  is not modified and is output as signal  $S_I'$ . In contrast, signal  $S_Q$  is modified by the skew correction device and is output as signal  $S_Q'$ . Accordingly, the skew correction device

only corrects one of the signal  $S_I$  and the signal  $S_Q$  based on the orthogonal skew and outputs the corrected signal  $S_Q'$  to the carrier reproduction circuit as shown in Fig. 4.

Regarding claim 10, the Office Action asserts that the recitation of "and one of the first signal and the second signal" is not taught in the Specification in such a way as to reasonably convey to one of ordinary skill in the art that the inventors, at the time the application was filed, had possession of the claimed invention. Based on our understanding of Fig. 5 and the accompanying description, this rejection is also improper for the same reasons as discussed above for claim 1.

Specifically, the skew correction device illustrated in Fig. 5 outputs a corrected signal and one of the first signal and the second signal.

In the example illustrated in Fig. 5, the  $S_Q$  signal is corrected (modified) and then output as signal  $S_Q'$  and the unmodified signal  $S_I$  is output as the signal  $S_I'$ .

Similarly, one of ordinary skill in the art would understand that the correction illustrated in Fig. 5 that was applied to the signal  $S_Q$ , instead of being applied to the signal  $S_Q$ , could be applied to the signal  $S_I$ .

Accordingly, Claims 1, 3, 4 and 6-14 comply with the written description requirement. Therefore, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claims 1, 3, 4 and 6-14 under 35 U.S.C. §112, first paragraph.

**35 U.S.C. §112, Second Paragraph**

Claims 4 and 9 were rejected under 35 U.S.C., second paragraph as being indefinite for failing particularly to point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended Claims 4 and 9 so that these claims particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claims 4 and 9 under 35 U.S.C. §112, second paragraph.

**35 U.S.C. §103(a)**

Claims 1, 3 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's admitted prior art (Fig. 1) in view of Sakamoto et al. (U.S. Patent No. 6,336,192 "Sakamoto").

The rejection of Claims 1 and 14 has been rendered moot by the amendment of these claims to depend from allowed Claim 2. Similarly, the rejection of Claim 3 has been rendered moot by the amendment of this claim to depend from allowable Claim 15. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claims 1, 3 and 14 under 35 U.S.C. §103(a).

**Conclusion**

Applicant's amendments and remarks have overcome the objections and corrections set forth in the Office Action dated May 31, 2005. Specifically, Applicant's amendments of Figs. 6 and 12 overcome the objection to the drawings. Applicant's

amendments of Claims 4, 5, 6, 8-11, 14 and 15 overcome the objection to these claims. Applicant's remarks have illustrated that the specification reasonably conveys to one skilled in the relevant art the invention recited in Claims 1, 3, 4 and 6-14 and thus overcomes rejection of these claims under 35 U.S.C. §112, first paragraph. Applicant's amendments of Claims 4 and 9 have overcome the rejection of these claims under 35 U.S.C. §112, second paragraph. Applicant's amendment of Claims 1, 3 and 14 to depend from allowed and/or allowable claims has rendered moot the rejection of these claims under 35 U.S.C. §103(a). Claims 2 and 16 were allowed. Claims 5 and 15 were indicated as allowable if amended to overcome the objection to these claims. Accordingly, Claims 1, 3-15 are in condition for allowance. Therefore, Applicant respectfully requests reconsideration and allowance of Claims 1 and 3-15. Claims 2 and 16 were allowed.

Applicant submits that the application is now in condition for allowance. If the Examiner believes that the application is not in condition for allowance, Applicant respectfully requests that the Examiner contact the undersigned attorney by telephone if it is believed that such contact will expedite the prosecution of the application. In the event that this paper is not considered to be timely filed, Applicant hereby petitions for an appropriate extension of time.

Inventor: Syouji OHISHI

Serial No.: 09/639,191  
Docket No.: 108391-00009

The Commissioner is authorized to change the payment for any additional fees which may be required with respect to this paper toward deposit to Account no 01-2300 making reference to attorney docket no. 108391-00009.

Respectfully submitted,

ARENT FOX PLLC



Rustan J. Hill  
Attorney for Applicant  
Registration No. 37,351

Customer No. **004372**  
1050 Connecticut Avenue, N.W.  
Suite 400  
Washington, D.C. 20036-5339  
Tel: (202) 857-6000  
Fax: (202) 638-4810  
RJH:elp  
Enclosures: Replacement Figs. 6 and 12  
Petition for Extension of Time  
370478\_1.DOC